

IN THE SPECIFICATION

Please amend the specification as shown below.

Please replace the paragraph beginning on page 1, line 16 with the following:

Composite bridge 1 of Fig. 1 is formed of two thyristors TH1 and TH2 and of two diodes D1 and D2 connected in two parallel branches of the bridge between two respective positive and reference output terminals 2 and 3. Terminals 2 and 3 are intended to provide the rectified voltage which is filtered by means of a capacitor C to provide a filtered D.C. supply voltage Vout to a load 4 (Q). Two input terminals 5 and 6 of bridge 1 receive an A.C. voltage Vin. Terminals 5 and 6 are connected to the respective interconnection points of the series ~~associations~~ connections of the thyristors and diodes, respectively TH1-D1 and TH2-D2.

Please replace the paragraphs beginning on page 1, line 31 with the following:

In Fig. 2, output voltage Vout has been shown in full line while rectified A.C. input voltage Vin (unfiltered) has been represented by a dotted line designated as Vinr. As is known, voltage Vout follows the course of voltage Vinr only during on periods of the rectifying bridge to recharge capacitor C. Between these periods, capacitor C discharges into load 4, which decreases voltage Vout.

In the first halfwave illustrated in Fig. 2, a turning-on of the thyristors at a time t1 is assumed. Only one of thyristors TH1 or TH2 conducts and recharges the capacitor until the middle of the halfwave. The second halfwave illustrated in Fig. 2 assumes a variation in the current surged by the load. In this example, an increase of the load is assumed, causing a decrease of voltage Vout faster than before the first halfwave. In this case, time t2 of conduction of the bridge thyristors is advanced with respect to what this conduction time (t1') would have been with no modification of the load. In the second halfwave, the conducting thyristor is not the same as in the first halfwave. However, this changes nothing with respect to the operating principles.

Please replace the paragraphs beginning on page 3, line 24 with the following:

The present invention aims at controlling the closing of thyristors of a rectifying bridge with a filtered output which overcomes the disadvantages of known solutions. In particular, the present invention aims at enabling use of sensitive thyristors, without ~~for this to result~~ resulting in high losses, nor in electromagnetic disturbances due to current peaks.

The present invention also aims at providing a control circuit ~~minimizing that reduces~~ the current consumption for the closing of the thyristors of a controllable rectifying bridge.

Please replace the paragraph beginning on page 4, line 1 with the following:

To achieve these and other objects, the present invention provides a method for controlling at least one thyristor constitutive of a rectifying bridge with a filtered output, ~~consisting of~~ comprising:

Please replace the paragraph beginning on page 4, line 16 with the following:

an element for inhibiting the gate current circuit as soon as the thyristor ~~is run through by~~ conducts a current greater than its latching current.

Please replace the paragraph beginning on page 6, line 4 with the following:

~~Same~~ The same elements have been designated with the same references in the different drawings. For clarity, the timing diagrams are not to scale. Further, only those circuit elements which are necessary to the understanding of the present invention have been shown in the drawings and will be described hereafter. In particular, the load supplied by a rectifying bridge according to the present invention has not been ~~detailed and is no object of the present invention~~

described in detail. The present invention applies to any load type, provided that it is supplied by means of the filtered output (for example, filtered by a capacitor) of a rectifying element comprising a thyristor controlled according to the present invention.

Please replace the paragraph beginning on page 8, line 11 with the following:

This turning-on of switch K causes the triggering of thyristor TH by the flowing of a gate current provided by current source 10. As soon as current I ~~running through~~ conducted by thyristor TH (Fig. 5D) becomes smaller than the threshold set by voltage reference Vref2, the output of comparator 131 switches and provides a high state at the reset input (Fig. 5E) of flip-flop 11 (time t3). This state switching resets output signal O of flip-flop 11 and accordingly turns off switch K.

Please replace the paragraph beginning on page 8, line 20 with the following:

Since the thyristor is triggered, independently from its gate control, it will remain on as long as it ~~is run through by~~ conducts a direct current, that is, as long as the voltage thereacross remains positive. In the application to a filtered rectifying bridge, this means that the thyristor remains on until rectified A.C. voltage Vinr falls back under voltage Vout stored by the capacitor (time t5), that is, after the passing at the top of halfwave Vinr (in fact, when the current flowing through thyristor TH becomes smaller than its hold current IH). At time t5, the blocking of thyristor TH causes the switching to the low state of the output of comparator 131, since the voltage across the thyristor is no longer positive (in reality, greater than voltage Vref2, taking dividing bridge R1-R2 into account).

Please replace the paragraphs beginning on page 9, line 9 with the following:

The disappearing of a high state at input S (Fig. 5B) of flip-flop 11 only occurs at a time t5 where thyristor TH turns off for lack of current flowing therethrough (in fact, a current smaller

than the hold current). Time t_5 thus is independent from the supplied load conditions. This has, however, no ~~incidence~~ effect on the thyristor gate current since the disappearing of the high state on signal R (Fig. 5E) also occurs at time t_5 , ~~forbidding the taking into account of preventing the~~ state on input S from having an effect.

An advantage of the present invention is that it enables determining the best moment to inject a control current into the thyristor gate. Indeed, by measuring the voltage thereacross, current peaks at the turning-on of this thyristor are avoided. Accordingly, harmonic disturbances are ~~suppressed~~ eliminated.

Another advantage of the present invention is that by ~~suppressing~~ eliminating its control current from as soon as it is on, reverse current leakages and the control circuit consumption are reduced.

Please replace the paragraph beginning on page 9, line 30 with the following:

Fig. 6 shows a second embodiment of a control circuit according to the present invention. This embodiment takes advantage of the functional features of the controlled thyristor(s) TH. It shows voltage detector 12, switch K and current source 10 for supplying gate G of the thyristor. The main difference with respect to the diagram of Fig. 4 is the ~~suppression~~ elimination of current detector 13. Said detector is replaced with a judicious choice of reference voltage V_{ref1} , taking advantage of a memory effect intrinsic to thyristor TH due to its latching current I_L .